REMARKS

The Application has been carefully reviewed in light of the Office Action dated April 1, 2005. Claims 1-14 and 16-21 are in the application, of which Claims 1, 6, 7, 12-14, 16 and 17 are independent. Claims 1, 2, 5-8, 12-14 and 16-21 have been amended to define still more clearly what Applicant regards as his invention. Claims 15, 22 and 23 have been cancelled without prejudice or disclaimer of subject matter, and will not be mentioned further. Favorable reconsideration is respectfully requested.

The amendments made to Claims 18 and 20 are believed to address the Examiner's objection made to the wording of those claims.

Applicant notes with appreciation the allowance of Claims 16 and 17, and the indication that Claims 2-4 and 8-10 would be allowable if rewritten so as not to depend from a rejected claim. The latter claims have not been so rewritten because, for the reasons set out below, their respective base claims are believed to be allowable.

In the outstanding Office Action, Claims 1, 6, 7, 12-14 and 18-21 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,321,776 (Shapiro), and Claims 5 and 11 were rejected under 35 U.S.C. § 103(a) as being obvious from *Shapiro* in view of U.S. Patent 6,389,176 (Hsu et al.)

Independent Claim 1 is directed to a method for performing an Inverse Discrete Wavelet Transform (IDWT), performed for a first sub-band level and a second sub-band level in an N level Discrete Wavelet Transform. In this method, the following steps are performed. (i) As soon as a first computation block is filled with sets of data points from corresponding sub-bands of the first sub-band level, those sets of data points from corresponding sub-bands of the first sub-band level are processed to form a set of

processed data points in a sub-band of the second sub-band level. (ii) As soon as a second computation block is filled with the set of processed data points in the sub-band of the second sub-band level in conjunction with at least one set of data points from a corresponding at least one sub-band of the second sub-band level, that set of processed data points in the sub-band of the second sub-band level are processed in conjunction with the at least one set of data points from the corresponding at least one sub-band of the second sub-band level, to form a set of processed data points in a sub-band of a subsequent sub-band level. According to Claim 1, each mentioned set of data points is smaller than the number of data points in a corresponding sub-band level.

Among other notable features recited in Claim 1 are (i) processing, as soon as a first computational block is filled with sets of data points from corresponding sub-bands of the first sub-band level, those sets of data points from corresponding sub-bands of the first sub-band level, to form a set of processed data points in a sub-band of the second sub-band level, and (ii) processing, as soon as a second computational block is filled with the set of processed data points in the sub-band of the second sub-band level in conjunction with at least one set of data points from a corresponding at least one sub-band of the second sub-band level, that set of processed data points in the sub-band of the second sub-band level in conjunction with the at least one set of data points from the corresponding at least one sub-band of the second sub-band level, to form a set of processed data points in a sub-band of a subsequent sub-band level. These features, at the least, are believed not to be taught or suggested by the art of record.

Shapiro relates to a system that performs a sub-band decomposition process in which an input signal is horizontally low-pass- and high-pass-filtered by units 20 and 21

(see Fig. 2) before being vertically sub-sampled by two units 28 and 29 that perform vertical subsampling by 2 (col. 4, lines 54-62). This sub-band decomposer is used in the arrangement of Fig. 14 which implements a data compression scheme (col. 20, lines 34-38, and col. 20, line 66, through col. 21, line 2). Fig. 18 shows an inverse transform module 1830 which "performs the inverse of the transform performed by the sub-band decomposer at the encoder of Fig. 2" (col. 24, line 68, through col. 25, line 2). *Shapiro* is silent as to the specifics of the inverse transform process, and in particular does not disclose an Inverse Discrete Wavelet Transform comprising the features noted above. For at least these reasons, Claim 1 is believed to be clearly allowable over *Shapiro*.

Independent Claims 6, 7 and 12-14 each recite features similar to those discussed above in regard to Claim 1 in respects pertinent to the arguments presented with regard to Claim 1. Accordingly, Claims 6, 7 and 12-14 are also deemed clearly allowable over *Shapiro*.

A review of the other art of record, including *Hsu*, has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as a reference against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

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